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ABSTRACT

To inform students of health risks (posed by behavior, environment, and genetics) and provide schools with collective risk appraisal information as a basis for planning/evaluating health and wellness initiatives, New Mexico administered the Teen Wellness Check in 1985 to 1,573 ninth-grade students from 7 New Mexico public schools. Subjects were 52% male and 48% female. Ethnic distribution was 46% Anglo, 36% Hispanic, 9.5% Native American, 2% Black, 1% Asian, and 5.5% other. Respondents confidentially answered questions on health-related knowledge and practices regarding family history, dental hygiene, alcohol and drug use, exercise, nutrition, sexuality knowledge, smoking, stress, and motor vehicle safety. Overall findings indicated 73% didn't always wear seatbelts, 62% didn't eat variety from 4 food groups daily, 50% didn't eat 5 breakfasts weekly, 40% didn't get 20 minutes of aerobic exercise 3 times weekly, 30% drank alcohol, 27% drove or rode with drivers under influence of alcohol/drugs, 23% were highly stressed, 15% smoked cigarettes, 15% used alcohol with other drugs, 12% often felt life was not worth living, 10% didn't brush teeth daily, 6% drank 5 or more alcoholic drinks daily, 2% smoked 1 or more packs of cigarettes daily, and 2% were 20% or more overweight. (NEC)

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New Mexico Health & Environment Department
New Mexico Department of Education

November, 1985

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NEW MEXICO

ADOLESCENT HEALTH

RISKS SURVEY

New Mexico Health & Environment Department
New Mexico Department of Education

By: David Antle, MPH

November, 1985

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Also, our great thanks to David Antle who conducted the survey and prepared the initial draft of this report while on contract with the Department of Health and Environment.

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INTRODUCTION

In the spring of 1985, the Office of Health Promotion, Adolescent Health Program and Nutrition Section of the New Mexico Health and Environment Department, Health Services Division, in conjunction with the Department of Education, funded an organized survey of adolescent health risks in selected public schools. The purpose of the project was to inform students of their health risks (posed by behavior, environment, and genetics) and to provide schools with collective risk appraisal information as a basis for planning and evaluating health and wellness initiatives.

PROJECT GOAL AND OBJECTIVES

The ultimate goal of the adolescent health risk survey is to contribute to improving adolescent health-related behaviors by the identification of specific risks. Towards this end, the following objectives were established:

1. To collect self-reported information on adolescent health-related knowledge and behaviors.

2. To provide participating students with a personalized appraisal of their health risks.

3. To provide each participating school with summary information on the self-reported health risks of their students.

4. To prepare a report summarizing and analyzing the self-reported health risks of New Mexico adolescents.

METHODOLOGY

The administration of Teen Wellness Check, a computerized adolescent risk appraisal developed by the Rhode Island Department of Health, was the primary methodology. Ninth grade students in selected New Mexico public schools were asked to voluntarily and confidentially answer a series of questions on their health-related knowledge and practices. Their individual responses were used to generate a personalized risk appraisal print-out which was returned, along with a supplementary informational booklet, for their review and consideration. One class session was used to explain the project, administer the questionnaire, and, where time permitted, process and return the individuals' print-outs. A second class session, conducted by school or local health office personnel, focused upon discussion of results and implications for healthy living. Aggregate data was stored for later analysis and conveyance to the participating schools.

TARGET POPULATION

Ninth grade students in seven New Mexico public schools composed the sample population. The schools selected provided a range of population size and community character, while remaining geographically feasible for survey administration. School participation was voluntary, with the only requirements being access to the student population and availability of a computer. The participating schools were:

1) Bernalillo Junior High School, Bernalillo, NM
2) Cibola High School, Albuquerque, NM
3) El Dorado High School, Albuquerque, NM
4) Estancia High School, Estancia, NM
5) Grants High School, Grants, NM
6) Los Lunas High School, Los Lunas, NM
7) West Mesa High School, Albuquerque, NM

Each school decided which classes would be best suited for reaching the entire ninth grade population. These were generally required courses for ninth graders and often were required health classes. Where school district curriculums varied, required ninth grade courses other than health education accommodated the survey. This planning safeguarded against surveying the same student(s) more than once. However, a small number of students of ages and grades other than the ninth grade were included if they were enrolled members of the surveyed classes. This may have occurred due to a student's previous failure of the course or due to transferring students who had unfulfilled course requirements upon arriving at their new school.

Students in attendance on the day the survey was conducted were offered the risk appraisal on a voluntary basis, with the assurance of confidentiality for their individual responses. Overall, 84% of the students who were enrolled in the sampled classes participated. There was no opportunity for those not in attendance on the survey day(s) to participate later. Fewer than 1% of those in attendance declined to participate; they were not questioned as to the rationale for their refusal. It is not known whether an absentee rate of approximately 15% is normal, but one must also consider heightened absenteeism due to extra-curricular events which culminate near the end of the school year (when the survey was conducted).

A total of 1573 students participated - 55% from Albuquerque schools, 45% representing schools in other New Mexico cities. Albuquerque has approximately 30% of the student population within the state. Males constituted 52% of the sample; females 48%. The age distribution follows:

Age	% of Total Sample
14	38%
15	49%
16	9%
17	3%
18	1%

As might be expected, 87% of the sample were under 16 years of age, and 96% under 17 years old. Ethnic distribution of the students surveyed was as follows:

Ethnic Group	% of Total Sample
Anglo	46.0%
Hispanic	36.0%
Native American	9.5%
Black	2.0%
Asian	1.0%
Other	5.5%

New Mexico has long been recognized as a multi-cultural state and these figures are reflective of this. The number of individuals who identified with "other" ethnic groups is believed to contain a significant number of mixed blood, cross-ethnic respondents.

HEALTH RISKS

The major health risks included in the survey are defined and discussed in this section. They are family history, dental practices, alcohol and drug use, exercise, nutrition, sexuality knowledge, smoking, stress and motor vehicle safety.

Family Health History

Many of the leading causes of death among adults have been linked to familial tendencies and heredity. Heart attack, stroke, cancer, high blood pressure and diabetes are foremost among these. Although genetic make-up does not necessarily condemn an individual to the onset of a particular disease, it is often said to predispose or contribute to an individual's chances of manifesting the disease. For example, an individual with a family history of heart disease has higher risk of coronary problems than someone without such a history (all other risk factors being equal). If the individual also smokes cigarettes heavily, then his/her genetic risk will be heightened by the behavioral risk of smoking. There is little, if anything, that can be done about one's family or genetic risk. But to those who have it, it is important to recognize its presence and make decisions accordingly about other "voluntary" risks such as smoking. Furthermore, awareness of the genetic propensity should encourage the pursuit of early detection and screening.

Dental Practices

Impressive gains have been made in dental health over the past years. Rather than the progressive, premature loss of teeth common to earlier generations, most people now expect to enjoy the advantages of clear speech, solid food consumption, and attractive appearance which natural teeth provide. Dental caries, commonly known as "cavities," remain problematic, particularly for the young and those whose oral hygiene is deficient. Dietary habits, particularly the frequent consumption of sweetened foods

and drinks, also contribute to dental problems. Nonetheless, diligent advocacy for daily hygiene has established and improved the practice of teeth brushing within most households. Further gains have come through community fluoridation and sealants which protect the teeth's surface enamel. Caries between teeth and gum disease still pose considerable obstacles to dental health. Dental flossing has been shown to reduce both of these problems, but its practice is not yet widely accepted.

Alcohol/Drug Use

The use of alcohol and other drugs contributes to the three leading causes of death for teenagers: accidents, homicide and suicide. Of all the alcohol-related highway traffic fatalities, 60% involve young people. Drugs may be used to cope with stress, conform with peers, or as a means of risk-taking experimentation. The most common drug, alcohol, is seen being consumed by adults and promoted by glamorous advertising. Adults supply this drug to teens through illegal sales, intermediary procurement, or some other voluntary consent. In the last two decades, marijuana has also become popular, albeit illegal. Although once thought harmless, recent scientific evidence shows that marijuana impairs memory, concentration, coordination, and some aspects of sexual development and fertility. Other drugs which may be available are amphetamines, barbiturates and cocaine. Some of these drugs are physically addicting, others are psychologically habit-forming, or both. The effects can be highly variable, but short-term impairment and long-term addiction and/or related problems may be expected. Many experts assert that alcohol and drug use underlies a significant portion of other, more readily identifiable health and social problems.

Exercise

Memories of childhood quickly evoke thoughts of activity-filled events and such scenes are readily observable with today's youth. Yet children quickly fit into the the environment of ease and convenience we know today. A recent national study of youth fitness showed declining fitness levels among school age children. At the same time we see a growing interest in health and fitness among young and middle-aged adults. The need for regular, vigorous exercise for all ages is supported. Virtually every non-genetic cardiac risk factor, as well as other disease processes, is beneficially affected by regular, vigorous exercise. Exercise can contribute to weight loss, lower blood pressure, stress management, mobility, self-esteem and personal energy. Although some benefit may be derived from any level or type of physical activity, regular and strenuous endurance activity, commonly called aerobic exercise, has proven to be the most beneficial for health. It is recommended that healthy people vigorously exercise for 15 continuous minutes or more at least three days per week. As with most habits, the earlier these practices are adopted and sustained the greater the likelihood of continuance throughout life.

Nutrition

While many people world-wide must be concerned about whether they will eat, the dilemma facing most United States citizens is what they will eat. Overeating and nutrition imbalances are the cause of most dietary-related problems. As the role of nutrition in disease development and progression emerges, it becomes increasingly clear that the nourishment provided our bodies underlies overall health and fitness. Nutritional status has been associated with many diseases, including heart disease, cancer, and diabetes. Moreover, it is a fundamental component of our bodies' immune and healing processes. Yet nutritional needs are frequently compromised for the convenience of preserved or prepared foods. "Fast food" has become a symbol of modern times, with its availability and acceptance concealing the compromised nutritional value. As more parents find it necessary to work outside the home, food choice decisions are increasingly made by the young. Fatty foods, carbonated beverages and sugary snacks contribute to obesity, which has been associated with at least 26 known medical conditions. Over one-quarter of persons over 30 years old are obese according to the United States Public Health Service. If this situation is to improve, adolescents and young adults must learn to base dietary decisions upon nutritional value. Regular meals and fewer snacks provide a good beginning.

Sexuality Issues

Although still considered children in most respects, adolescents are thrust into adult-like situations through their developing sexuality. Psychological and emotional development necessary to deal with new feelings, pressures and situations often lags behind physical development. Sexual language and innuendo are commonplace, and there is great temptation for young people to act as if they know more than they really do. The results can be devastating and long-lasting. By age 19, one-fourth of all adolescent females have had at least one pregnancy. Although birth rates for teenagers aged 16 to 19 are declining, they are increasing for females under 16. Teen pregnancies often result in disruption of schooling, increased likelihood of repeat pregnancies, and a life of low income and public dependence as well as severe family stress. Furthermore, there are pronounced health risks to both mother and child.

Those who avoid pregnancy by contraception or fate still face the risk of sexually transmitted diseases. The incidence of gonorrhea and syphilis continues to increase among adolescents in addition to the threat of genital herpes, condylomata, and nonspecific urethritis. Those between the ages of 15 and 24 account for approximately 75% of all sexually transmitted disease cases.

Smoking

The Surgeon General has proclaimed cigarette smoking to be the single most important preventable cause of death and disease in this country. Cancer, heart disease and chronic respiratory problems such as emphysema and bronchitis have all been linked to cigarette smoking. Smoking also poses major risks during pregnancy. The abundance of evidence of the detrimental effects of smoking has resulted in mandatory warning labels, advertising restrictions, high taxation and an increasing number of laws aimed at discouraging the practice for the well-being of both smokers and those involuntarily

exposed to smoke. As a result, the percentage of adult smokers is declining; but it is estimated that approximately 30% continue to smoke. A disturbing increase in the number of women smokers has also been documented in recent years, and lung cancer among females is now surpassing breast cancer as the most common cause of cancer death. When considering cigarette smoking among teens, it is important to note that the majority of adult smokers started smoking before the age of 20. In New Mexico any child can readily acquire cigarettes since there is no law restricting the purchase of cigarettes by age. Cigarette smoking's dramatic influence on adult health and its addictive properties warrant concern over any degree of adolescent use.

Stress

Stress is the body's way of reacting to anxiety-producing events and is particularly reflective of one's emotional state. Although it can be used as a catalyst for productive activity, continued stress over time can be debilitating. Many of the leading physiological causes of death have been shown to be directly related to stress. Moreover, behavioral reactions such as suicide and drug abuse are common results of stress. Those who feel that they have little control over their lives or situations and those lacking personal and/or family support systems experience more stress than others. Adolescents often see themselves in this position. Adolescence is a time of many changes, peer pressures, increased expectations and social discomfort. Coping abilities and self-confidence are not fully developed. These factors and innumerable personal situations culminate in stress.

One reaction to stress is suicide, the third leading cause of death among young people, and it is on the rise. The risk is highest among those who are severely depressed and those at odds with themselves and people close to them. The perceived support of friends and relatives can make the critical difference. Most persons contemplating the taking of their own life first give verbal or behavioral warnings to those around them. In addition, 80% of those who commit suicide have made previous attempts.

Motor Vehicle Safety

Motor vehicle accidents are the leading cause of death for adolescents, accounting for 37% of all deaths in the 15 to 24 age group. So severe is this problem that the risk of death for a teenager involved in a motor vehicle accident is double that of a driver 25 years or older. Excessive speed is a factor in almost half of all vehicular fatalities among teenagers, and alcohol drug use is involved in at least that proportion. Furthermore, the same risk-taking attitudes can diminish the use of seatbelts, which have been shown to significantly reduce death and injury in vehicular accidents. Most adolescents readily identify "car accidents" as the leading cause of death and disability among their peers. Despite the dangers, driving a car remains one of the most prestigious of teen status symbols. A number of states have raised the driving age and/or placed curfew and other restrictions on teen driving in an effort to address this most deadly of problems.

SURVEY FINDINGS

The information displayed in the sections which follow presents the data collected, categorized by health risk areas. All data is aggregated, assuring confidentiality to the participating students. Analysis is based upon the percent of students reporting specific risks. Although ethnicity was categorized into six groups, the numbers of Blacks, Asians, and "other" students were too small for credible analysis. Thus, comments focus upon Anglos, Hispanics, and Native Americans the three largest segments of New Mexico's population. There is no identification of individual school data. This information will be shared with officials of each respective school for their own use.

Risk Summary

The table below summarizes the overall findings for fourteen of the most important risk factors and provides the range of aggregate scores found throughout the seven participating schools. Additional questions were asked about immunization status, vehicle and pedestrian safety, ability to swim and some special questions for female respondents. These have not been included in this summary because of their lesser impact on general health status. All questions are found in the Appendix I of this report.

In the risk summary table below, the students of some schools reported twice the risk level for certain factors compared to other schools. Examination and discussion of any of the significant risk differences between the participating schols may yield beneficial information on educational methodologies and healthful environmental considerations.

ADOLESCENT RISK SUMMARY

Risk Factor	TOTAL	RANGE
Don't eat a variety from four food groups daily	62%	60-66%
Don't eat breakfast at least five times weekly	50%	30-60%
Don't brush teeth daily	10%	6-15%
Don't get 20 minutes of aerobic exercise at least 3 time weekly	40%	31-57%
Smoke cigarettes	15%	12-18%
Smoke one or more packs of cigarettes daily	2%	1-6%
Drink alcohol	30%	23-38%

ADOLESCENT
RISK SUMMARY (continued)

Risk Factor	TOTAL	RANGE
Drink 5 or more alcoholic drinks in one day	6%	4-8%
Use alcohol with other drugs	15%	9-21%
Drive or ride with a driver who is under the influence of alcohol or drugs	29%	22-45%
Don't always wear seatbelts	73%	43-96%
Are highly stressed	23%	18-30%
Often feel life is not worth living	12%	9-18%
Are overweight by 20% or more	2%	0-5%

Family Health History

The survey revealed that 46.6% of the students were aware that blood relatives had had either a heart attack, stroke, high blood pressure or diabetes before the age of 60. Another 23.8% did not know if their family displayed these risks. Among Native Americans, the portion of those not knowing rose to 34%. Less than 30% could state that their family had a healthy history in relation to these diseases.

Given the prevalence of these diseases among the adult population, these figures may not be surprising. Yet they pose significant implications for the health of the next generation and the health care system that will address them. Although 46.6% knew that their family had a risk history, they did not necessarily recognize its implications for their lifestyle decisions. Those students with genetic predisposition could benefit by recognition of the multiplier effect evoked by their behavioral risks. This group may also be able to actively assist classroom discussion with real-life experiences of the consequences of such diseases. Equally important are the nearly one-quarter of students who do not know if their family health history includes these leading causes of death. Identification of such risks can be an important factor in their lifestyle decisions.

FAMILY RISK HISTORY BY ETHNICITY

Question: Has a blood relative (parent, grandparent, brother, or sister) had either a heart attack, a stroke, high blood pressure, or diabetes before the age of 60?

	TOTAL	Anglo	Hispanic	Native American	Black	Asian	Other
Yes	46.6%	46.7%	47.3%	38.7%	63.3%	33.3%	51.7%
No	29.6%	32.5%	27.7%	27.3%	23.3%	40.0%	21.8%
Don't Know	23.8%	20.9%	25.0%	34.0%	13.3%	26.7%	26.4%

Dental Practices

Dental health habits generally appeared to be well established among the respondents. Almost 90% reported brushing their teeth daily and virtually everyone brushed with some frequency. Among girls, daily brushing was performed by 95% while 85% of the boys reported brushing each day. Daily hygiene was common among all ethnic groups led by 93.7% of Hispanics. Eighty percent of Native Americans practiced daily oral hygiene. The practice of dental flossing was not as common. 12.7% flossed daily, while nearly twice as many (24.1%) never flossed. Girls were more conscientious with approximately twice as many (17.2%) flossing daily compared to the boys (8.5%). Those seldom or never flossing made up the majority for both sexes, with 73.8% of the males and 60.8% of the females placing themselves in this group. Analysis of flossing by ethnicity showed Hispanics to have better practices than Anglos. Native Americans reported the most frequent flossing, with 48% flossing three time per week or more.

Over three-quarters (77.6%) of the students had had their teeth checked and/or cleaned during the past year. Males and females were similarly diligent in this practice. Hispanics were less likely to have had this professional attention than other ethnic groups.

FREQUENCY OF TEETH BRUSHING BY SEX

Question: How often do you brush your teeth?

	TOTAL	Male	Female
Daily	89.8%	85.0%	95.0%
At Least 3X/Week	7.4%	11.7%	2.8%
Seldom	2.7%	3.1%	2.2%
Never	0.1%	0.2%	0%

FREQUENCY OF TEETH BRUSHING BY ETHNICITY

Question: How often do you brush your teeth?

	TOTAL	Anglo	Hispanic	Native American	Black	Asian	Other
Daily	89.8%	87.8%	93.7%	80.0%	96.7%	100.0%	94.3%
At least 3x/wk.	7.4%	9.1%	4.4%	14.0%	0.%	0%	4.6%
Seldom	2.7%	3.0%	1.8%	6.0%	3.3%	0%	0%
Never	0.1%	0%	0.2%	0%	0%	0%	1.1%

FREQUENCY OF DENTAL FLOSSING BY SEX

Question: How often do you use dental floss on your teeth and gums?

	TOTAL	Male	Female
Daily	12.7%	8.5%	17.2%
At Least 3X/Week	.8%	17.8%	22.0%
Seldom	43.4%	44.2%	42.6%
Never	24.1%	29.6%	18.2%

FREQUENCY OF DENTAL FLOSSING BY ETHNICITY

Question: How often do you use dental floss on your teeth and gums?

	TOTAL	Anglo	Hispanic	Native American	Black	Asian	Other
Daily	12.7%	9.3%	13.9%	2.7%	10.0%	13.3%	16.1%
At least 3x/wk.	19.8%	16.4%	22.4%	25.3%	13.3%	20.0%	24.1%
Seldom	42.4%	48.8%	40.2%	30.7%	63.3%	33.3%	36.8%
Never	24.1%	25.6%	23.5%	21.3%	13.3%	33.3%	23.0%

FREQUENCY OF DENTAL EXAMINATION BY SEX

Question: Have you had your teeth checked and/or cleaned at a dentist's office or clinic in the past 12 months?

	TOTAL	Male	Female
Yes	77.6%	77.2%	78.1%
No	22.4%	22.8%	21.9%

FREQUENCY OF DENTAL EXAMINATION BY ETHNICITY

Question: Have you had your teeth checked and/or cleaned at a dentist's office or clinic in the past 12 months?

	TOTAL	Anglo	Hispanic	Native American	Black	Asian	Other
Yes	77.6%	82.5%	71.6%	77.3%	70.0%	73.3%	80.5%
No	22.4%	17.5%	28.4%	22.7%	30.0	26.7%	19.5%

Alcohol/Drug Use

Thirty percent of the students drank some amount of alcohol during a typical week. Females were slightly more prone to abstinence from alcohol (72.3%) than males (67.7%). The sexes were about equally as likely to have one or more drinks as the most they drink in any one day. But at all higher levels of drinking, males predominated. Three or more drinks in one day were consumed by 11.4% of the students, with this level representing 14% of the boys and 8.5% of the girls. Almost four percent of the respondents had 7 drinks or more as the most they consumed in any one day during a typical week (5.2% of the boys, 2.3% of the girls). Sixty four percent (64%) of Native Americans reported they did not drink, compared to 69% of Hispanics and 72% of Anglos. This ranking remains consistent at all levels of alcohol consumption up to 9 drinks in one day. A surprising 1.8% of the students claimed that they had 11 or more drinks in one day during the average week. Hispanics were most heavily represented in this group (2.6%), with Anglos and Native Americans at 1.2 and 1.3% respectively.

Fifteen percent of the survey participants used alcohol with other drugs. The level of mixed drug use was fairly similar between boys and girls. Thirty percent (30%) of Hispanics reported combining drugs compared to 10% of Anglos and 13% of Native Americans.

The survey did not inquire about the use of marijuana, but it did ask if more cancer-causing agents were contained in marijuana than in tobacco. Sixty-five percent of the students correctly answered yes. Males were somewhat better informed on this issue (67.7%) than females (61.9%). Native Americans were the most knowledgeable on this question, followed by Anglos, then Hispanics.

CONSUMPTION OF ALCOHOL BY SEX

Question: In a typical week, what is the most alcohol you drink in any one day? (followed by a definition of one drink for various types of alcohol)

	TOTAL	Male	Female
None, do not drink	69.9%	67.7%	72.3%
1-2 drinks in 1 day	18.7%	18.2%	19.3%
3-4 drinks in 1 day	5.5%	6.1%	4.7%
5-6 drinks in 1 day	2.1%	2.7%	1.5%
7-8 drinks in 1 day	1.5%	2.2%	0.7%
9-10 drinks in 1 day	0.5%	0.7%	0.3%
11 or more in 1 day	1.8%	2.3%	1.3%

CONSUMPTION OF ALCOHOL BY ETHNICITY

Question: In a typical week, what is the most alcohol you drink in any one day? (followed by a definition of one drink for various types of alcohol)

	TOTAL	Anglo	Hispanic	Native American	Black	Asian	Other
None, do not drink	6.9%	72.1%	69.1%	64.0%	73.3%	80.0%	64.4%
1-2 drinks in 1 day	18.7%	17.7%	18.7%	20.0%	23.3%	13.3%	24.1%
3-4 drinks in 1 day	5.5%	5.4%	5.5%	6.7%	3.3%	0%	5.7%
5-6 drinks in 1 day	2.1%	1.8%	2.1%	3.3%	0%	6.7%	2.3%
7-8 drinks in 1 day	1.5%	1.2%	1.6%	3.3%	0%	0%	0%
9-10 drinks in 1 day	0.5%	0.6%	0.4%	1.3%	0%	0%	0%
11 or more drinks in 1 day	1.8%	1.2%	2.6%	1.3%	0%	0%	3.4%

USE OF ALCOHOL WITH OTHER DRUGS BY SEX

Question: Do you ever use alcohol with other drugs?

	TOTAL	Male	Female
No, I Don't	85.0%	84.4%	85.6%
Yes, Often	1.9%	2.2%	1.6%
Yes, Sometimes	4.8%	4.9%	4.7%
Yes, Very Seldom	8.3%	8.5%	8.0%

USE OF ALCOHOL WITH OTHER DRUGS BY ETHNICITY

Question: Do you ever use alcohol with other drugs?

	TOTAL	Anglo	Hispanic	Native American	Black	Asian	Other
No, I Don't	85.0%	89.9%	79.9%	86.7%	80.0%	86.7%	75.9%
Yes, Often	1.9%	1.4%	2.8%	0.7%	0%	6.7%	2.3%
Yes, Sometimes	4.8%	3.0%	5.8%	6.7%	0%	0%	12.6%
Yes, Very Seldom	8.3%	5.7%	11.5%	6.0%	20.0	6.7%	9.2%

KNOWLEDGE OF CARCINOGENS IN MARIJUANA BY SEX

Question: Does marijuana smoke contain more cancer-causing agents than tobacco smoke?

	TOTAL	Male	Female
Yes	64.9%	67.7%	61.9%
No	35.1%	32.3%	38.1%

KNOWLEDGE OF CARCINOGENS IN MARIJUANA BY ETHNICITY

Question: Does marijuana smoke contain more cancer-causing agents than tobacco smoke?

	TOTAL	Anglo	Hispanic	Native American	Black	Asian	Other
Yes	64.9%	68.6%	60.3%	70.0%	43.3%	73.3%	60.9%
No	35.1%	31.4%	39.7%	30.0%	56.7%	26.7%	39.1%

Exercise

Aerobic exercise was performed daily by 34% of the students, with males significantly better represented (41%) than females (26.5%). Another 26.1% participate in aerobics at least three times per week, and this category had similar representation from both sexes. This implies that 60.1% of the adolescents surveyed met the minimum requirement of aerobic activity necessary to attain measurable health benefits. The remaining 39.9% engaged in aerobic activity twice per week or less, including 4.6% who never exercise aerobically. Although Anglos, Hispanics, and Native Americans had similar percentages exercising daily (34.8%, 32.1%, and 34.7% respectively), there were proportionately twice as many Native Americans (9.3%) who reported never doing aerobic exercise compared to Hispanics and Anglos (both at 4.6%).

One-quarter of the teens reported that they walked at least one mile per day without stopping. Females had significantly lower rates (18.1%) than males (32.8%). The sexual variation diminished somewhat with those walking a mile at least three times per week, with 26.4% of the girls and 32.4% of the boys reporting this level of activity. Five percent (4.2% of males, 5.8% of females) reported never walking one mile without stopping. Ethnic variation was not as noticeable on this question for the daily and three times per week categories. 3.6% of Anglos reported never walking a mile, compared with 6.2% of Hispanics and 6.7% of Native Americans.

FREQUENCY OF AEROBIC EXERCISE BY SEX

Question: How often do you get at least 20 minute of non-stop aerobic exercise? (preceded by a description and examples of aerobic exercise)

	TOTAL	Male	Female
Daily	34.0%	41.0%	26.5%
At Least 3x/Week	26.1%	25.8%	26.4%
Once or Twice/Week	21.2%	17.4%	25.2%
Seldom	13.3%	10.6%	16.2%
Never	5.5%	5.3%	5.7%

FREQUENCY OF AEROBIC EXERCISE BY ETHNICITY

Question: How often do you get at least 20 minutes of non-stop aerobic exercise? (preceded by a description and examples of aerobic exercise)

	TOTAL	Anglo	Hispanic	Native American	Black	Asian	Other
Daily	34.0%	34.8%	32.1%	34.7%	23.3%	46.7%	40.2%
At least 3X/Week	26.1%	28.2%	25.4%	20.7%	36.7%	13.3%	20.7%
Once or Twice/Week	21.2%	19.6%	23.3%	23.3%	26.7%	13.3%	16.1%
Seldom	13.3%	12.8%	14.6%	12.0%	10.0%	6.7%	12.6%
Never	5.5%	4.6%	4.6%	9.3%	3.3%	20.0%	10.3%

FREQUENCY OF WALKING BY SEX

Question: How often do you walk at least one mile without stopping?

	TOTAL	Male	Female
Daily	25.7%	32.8%	18.1%
At least 3X/Week	29.5%	32.4%	26.4%
Seldom	39.9%	30.7%	49.7%
Never	5.0%	4.2%	5.8%

FREQUENCY OF WALKING BY ETHNICITY

Question: How often do you walk at least one mile without stopping?

	TOTAL	Anglo	Hispanic	Native American	Black	Asian	Other
Daily	25.7%	26.5%	24.0%	24.0%	30.0%	26.7%	31.0%
At least 3X/Week	29.5%	31.1%	29.1%	28.7%	23.3%	26.7%	23.0%
Seldom	39.9%	38.8%	40.7%	40.7%	40.0%	40.0%	41.4%
Never	5.0%	3.6%	6.2%	6.7%	6.7%	6.7%	4.6%

Nutrition

According to the risk appraisal survey, only 37.5% of the students ate breakfast daily, and boys were significantly more likely to do so than girls. However, one-half of the respondents ate breakfast at least five times per week. Twice as many Anglo students (47.5%) ate breakfast daily as did Native Americans (20.7%). Thirty percent (30%) of Hispanics have breakfast daily.

Almost 43% of Native American and Anglo students reported that they ate foods from each of the four basic food groups daily. Thirty percent (30%) of Hispanic students consumed foods from each of the four food groups daily. Almost 4% of the surveyed population never or rarely ate the recommended variety of foods in a single day.

Sweet snack foods were eaten daily by almost 47% of the students and three times per week or more by 84%. Approximately 16% of the respondents seldom or never ate sweets, with females (17.3%) more prone to this dietary exclusion than males (14.8%). One quarter of Native American students were in the seldom/never category for sweet eating. Native Americans were also less likely to eat sweets frequently, but 74.7% did eat them three times or more per week. Hispanics were the most likely to eat sweets daily (49.4%). However, Hispanics were also heavily represented among the three times per week or more consumers (83.8%), as were Anglos at 85.7%.

FREQUENCY OF BREAKFAST
BY SEX

Question: How many days in a typical week do you eat breakfast?

	TOTAL	Male	Female
Everyday	37.5%	48.8%	25.3%
5 or 6 days/week	12.7%	12.9%	12.5%
2 to 4 days/week	26.0%	23.3%	28.9%
1 day or none	23.8%	15.0%	33.2%

FREQUENCY OF BREAKFAST BY ETHNICITY

Question: How many days in a typical week do you eat breakfast?

	TOTAL	Anglo	Hispanic	Native American	Black	Asian	Other
Every day	37.5%	47.5%	30.0%	20.7%	40.0%	20.0%	34.5%
5 or 6 days/week	12.7%	14.0%	11.8%	10.0%	6.7%	20.0%	13.8%
2 to 4 days/week	26.0%	20.9%	30.3%	35.3%	26.7%	33.3%	23.0%
1 day or None	23.8%	17.7%	27.9%	34.0%	26.7%	26.7%	28.7%

FREQUENCY OF CONSUMPTION FROM FOUR FOOD GROUPS BY SEX

Question: How many days in a typical week do you eat foods from each of the four food groups? (followed by a list of the four food groups)

	TOTAL	Male	Female
Everyday	37.9%	40.9%	34.7%
5 or 6 days/week	30.1%	29.7%	30.6%
2 to 4 days/week	28.2%	25.6%	31.0%
1 day or none	3.8%	3.85	3.7%

FREQUENCY OF CONSUMPTION FROM FOUR FOOD GROUPS BY ETHNICITY

Question: How many days in a typical week do you eat foods from each of the four food groups? (followed by a list of the four food groups)

	TOTAL	Anglo	Hispanic	Native American	Black	Asian	Other
Every day	37.9%	42.5%	30.0%	42.7%	40.0%	40.0%	41.4%
5 or 6 days/week	30.1%	28.7%	32.3%	27.3%	36.7%	40.0%	28.7%
2 to 4 days/week	28.2%	25.1%	33.0%	28.7%	23.3%	20.0%	25.3%
1 day or None	3.8%	3.6%	4.8%	1.3%	0%	0%	4.6%

FREQUENCY OF SNACKS BY SEX

Question: How often do you snack on foods like pastries, candy, sweets, soft drinks, or other sugary foods?

	TOTAL	Male	Female
Daily	46.7%	48.0%	45.4%
At least 3x/week	37.3%	37.3%	37.3%
Seldom	15.5%	14.4%	16.8%
Never	0.4%	0.4%	0.5%

FREQUENCY OF SNACKS BY ETHNICITY

Question: How often do you snack on foods like pastries, candy, sweets, soft drinks, or other sugary foods?

	TOTAL	Anglo	Hispanic	Native American	Black	Asian	Other
Daily	46.7%	46.3%	49.4%	32.0%	46.7%	53.3%	57.5%
At least 3x/week	37.3%	39.4%	34.4%	42.7%	40.0%	26.7%	31.0%
Seldom	15.5%	14.2%	15.5%	24.0%	13.3%	20.0%	11.5%
Never	0.4%	0.1%	0.7%	1.3%	0%	0%	0%

Sexuality Issues

The questionnaire did not ask about sexual activity, electing instead to examine the knowledge of students about sexuality issues. Females were somewhat better informed than males. The fact that sexual intercourse without effective birth control can result in pregnancy was known by 82% of the students (80.9% of males, 83.2% of females). Approximately 13% of both sexes were unsure of the answer. Ethnic analysis revealed substantial differences in knowledge. (91.4%) Anglos, 77.7% of Hispanics and (40.7%) of Native Americans knew that pregnancy could result from even one sexual encounter.

Students were also asked about sexually transmitted diseases. Girls were again slightly more knowledgeable (85.2%) than boys (83.3%) when asked if sexual activity with several partners increased the likelihood of sexually transmitted diseases. Almost 12% of the respondents were unsure. 50% of Native Americans, 80% of Hispanics and 94% of Anglos answered correctly.

The survey recognized some uniquely feminine health issues and concluded with several questions for girls only. Over half of the females did not know that the use of birth control pills combined with cigarette smoking increases the risk of blood clotting. Anglo girls were the most likely (54.2%) to have known this fact, followed by Hispanics (42.6%) and Native Americans (33.8%). One quarter of Native American girls reported that they practiced breast self-examination monthly compared to 14.8% of Hispanics and 19% of Anglos. Overall, 82.6% of the girls failed to take the precaution of monthly breast examination.

KNOWLEDGE OF CONCEPTION BY SEX

Question: Can sexual intercourse even once, without effective birth control, result in pregnancy?

	TOTAL	Male	Female
Yes	82.0%	80.9%	83.2%
No	5.1%	6.4%	3.7%
Not Sure	12.9%	12.8%	13.1%

KNOWLEDGE OF CONCEPTION BY ETHNICITY

Question: Can sexual intercourse even once, without effective birth control, result in pregnancy?

	TOTAL	Anglo	Hispanic	Native American	Black	Asian	Other
Yes	82.0%	91.4%	79.9%	40.7%	86.7%	100.0%	83.9%
No	5.1%	2.8%	5.5%	16.0%	0%	0%	5.7%
Not sure	12.9%	5.8%	14.6%	43.3%	13.3%	0%	10.3%

KNOWLEDGE OF SEXUALLY TRANSMITTED DISEASE BY SEX

Question: Will sexual activity with several partners increase a person's chances of getting sexually transmitted/venereal disease?

	TOTAL	Male	Female
Yes	84.2%	83.3%	85.2%
No	3.9%	5.9%	1.8%
Not sure	11.8%	10.8%	12.9%

KNOWLEDGE OF SEXUALLY TRANSMITTED DISEASE BY ETHNICITY

Question: Will sexual activity with several partners increase a person's chances of getting sexually transmitted/venereal disease?

	TOTAL	Anglo	Hispanic	Native American	Black	Asian	Other
Yes	84.2%	93.6%	80.4%	58.0%	76.7%	86.7%	78.2%
No	3.9%	1.9%	4.4%	10.0%	0%	0%	9.2%
Not sure	11.8%	4.4%	15.2%	32.0%	23.3%	13.3%	12.6%

KNOWLEDGE OF CONTRACEPTIVE RISK (Females only)

Question: Are women who take birth control pills and smoke cigarettes at an increased risk of blood clotting? (females only)

	TOTAL	Anglo	Hispanic	Native American	Black	Asian	Other
Yes	47.8%	54.2%	42.6%	33.8%	50.0%	33.3%	55.6%
No	1.3%	1.4%	0.6%	1.3%	10.0%	0%	2.2%
Don't know	50.8%	44.4%	56.7%	64.9%	40.0%	66.7%	42.2%

PERFORMANCE OF BREAST SELF-EXAMINATION
(Females only)

Question: Do you examine your breasts each month to detect lumps? (females only)

	TOTAL	Anglo	Hispanic	Native American	Black	Asian	Other
Yes	17.4%	19.0%	14.8%	25.7%	15.0%	0%	11.1%
No	82.6%	81.0%	85.2%	74.3%	85.0%	100.0%	88.9%

Smoking

85.1% of our sample did not smoke. This includes 67.6% who never smoked and 17.5% who had already "quit." It is not known of those who quit how long they had smoked or how much. A higher proportion of girls were smoking (16.5%) than boys (13.3%).

6.7% of the boys and 10.3% of the girls smoke one pack or less per week. Another 6.3% (both sexes combined) smoke more than a pack per week, with 2.3% who smoked more than one pack per day. 1.3% of Native Americans smoked more than a pack per week and none smoked at higher levels. 7.9% of Anglos and 5.8% of Hispanics consumed a pack or more per week, with greater than a pack per day habit reported by 3.2% and 2.1% respectively.

Of those presently smoking, 12% do not plan to quit and another 6.6% say that they will quit only if forced by illness or disease. The remaining 81.4% plan to quit at some time in the future, most in the "near future."

CIGARETTE CONSUMPTION BY SEX

Question: How many cigarettes (tobacco) do you smoke?

	TOTAL	Male	Female
None, Never Smoked	67.6%	69.9%	65.2%
None, Quit Smoking	17.5%	16.8%	18.3%
Pack or Less/Week	8.5%	6.7%	10.3%
More Than Pack/Week, Less Than Pack/Day	4.0%	4.0%	4.0%
1 Pack/Day	1.8%	1.8%	1.8%
1 to 2 Packs/Day	0.4%	0.5%	0.3%
2 or More Packs/Day	0.1%	0.1%	0.1%

CIGARETTE CONSUMPTION BY ETHNICITY

Question: How many cigarettes (tobacco) do you smoke?

	TOTAL	Anglo	Hispanic	Native American	Black	Asian	Other
None, Never Smoked	67.6%	69.2%	67.7%	54.0%	63.3%	86.7%	75.9%
None, quit smoking	17.5%	17.0%	16.9%	26.7%	20.0%	0%	12.6%
Pack or Less/ Week	8.5%	5.9%	9.5%	18.0%	13.3%	6.7%	4.6%
More Than Pack/Week Less Than Pack/Day	4.0%	4.7%	3.7%	1.3%	3.3%	6.7%	4.6%
1 Pack Day	1.8%	2.8%	1.4%	0%	0%	0%	1.1%
1 to 2 Packs/Day	0.4%	0.1%	0.75	0%	0%	0%	1.1%
2 or More Packs/Day	0.1%	0.3%	0%	0%	0%	0%	0%

INTENTION TO QUIT SMOKING BY SEX

Question: If you are a cigarette smoker, do you plan on quitting some day?

	TOTAL	Male	Female
I do not smoke	84.6%	86.3%	82.7%
No, no plan to quit	1.8%	1.8%	1.7%
Yes, in near future	7.5%	6.7%	8.3%
Yes, before I get out of high school	3.2%	2.3%	4.2%
Yes, before I turn 21 years old	2.0%	2.2%	1.7%
Only if forced by illness or disease	1.0%	0.6%	1.3%

INTENTION TO QUIT SMOKING BY ETHNICITY

Question: If you are a cigarette smoker, do you plan on quitting some day?

	TOTAL	Anglo	Hispanic	Native American	Black	Asian	Other
I do not smoke	84.6%	86.0%	84.1%	78.0%	80.0%	86.7%	87.4%
No, no plan to quit	1.8%	1.0%	2.5%	2.7%	3.3%	0%	2.3%
Yes, in near future	7.5%	6.4%	7.6%	12.7%	6.7%	6.7%	8.0%
Yes, before I get out of High School	3.2%	3.9%	2.5%	4.0%	6.7%	0%	1.1%
Yes, before I turn 21 years old	2.0%	1.9%	2.1%	2.7%	0%	6.7%	0%
Only if forced by illness or disease	1.0%	0.8%	1.2%	0%	3.3%	0%	1.1%

Stress

The risk appraisal data indicated that females had higher stress levels but also had more support available than males. When asked if they had feelings that life wasn't worth living, 15.3% of the females said that they had that feeling "often" and 25.6% said they "sometimes" felt that way. Only 31.8% said they had not had that feeling in the past six months. In contrast, 57.8% of the males had not had feelings of low life worth in the past six months. Only 8.8% had such feelings often and 12% had them sometimes. Hispanics were the ethnic group most likely to have had feelings often that life wasn't worth living. Native Americans were the least likely.

Support from friends and relatives was perceived to be more available by females than males. Approximately 71% of the males said they usually had someone to turn to for help when something is troubling them, compared to 74.4% of the females. No one was available to help 9.4% of the boys, while only 4.1% of the girls felt this way. Native Americans had the fewest respondents who "usually" had someone to help available (64%), but only 6.7% said they never had someone for support. Seven percent of the Anglos had no one to turn to, while only 5.8% of Hispanics were in this situation.

LIFE WORTH
BY SEX

Question: In the past six months, have you had feelings that life wasn't worth living?

	TOTAL	Male	Female
Yes, Often	12.0%	8.8%	15.3%
Yes, Sometimes	18.6%	12.0%	25.6%
Yes, Rarely	24.2%	21.3%	27.3%
No, I Haven't	45.3%	57.8%	31.8%

LIFE WORTH
BY ETHNICITY

Question: In the past six months, have you had feelings that life wasn't worth living?

	TOTAL	Anglo	Hispanic	Native American	Black	Asian	Other
Yes, Often	12.0%	11.0%	13.4%	8.0%	20.0%	20.0%	12.6%
Yes, Sometimes	18.6%	17.3%	19.4%	20.0%	26.7%	6.7%	20.7%
Yes, Rarely	24.2%	23.5%	25.0%	28.0%	16.7%	26.7%	20.7%
No, I Haven't	45.3%	48.2%	42.2%	44.0%	36.7%	46.7%	46.0%

AVAILABILITY OF SUPPORT
BY SEX

Question: Do you have friends or relatives that you can turn to for help when something is troubling you?

	TOTAL	Male	Female
Yes, Usually	72.5%	70.7%	74.4%
Yes, Sometimes	20.7%	19.9%	21.5%
No	6.9%	9.4%	4.1%

AVAILABILITY OF SUPPORT BY ETHNICITY

Question: Do you have friends or relatives that you can turn to for help when something is troubling you?

	TOTAL	Anglo	Hispanic	Native American	Black	Asian	Other
Yes, Usually	77.5%	74.9%	72.5%	64.0%	73.3%	66.7%	67.8%
Yes, Sometimes	20.7%	18.1%	21.7%	29.3%	23.3%	20.0%	19.5%
No	6.9%	7.0%	5.8%	6.7%	3.3%	13.3%	12.6%

Motor Vehicle Safety

Some survey respondents were just entering their driving years and many others (55.1%) were still only passengers. Those not yet behind the wheel often rode with the increasing number of their peers who were novice drivers. Only 13.7% of the total sample (approximately 30% of those driving) asserted that they never exceeded the speed limit by more than 10 miles per hour. Approximately 41% of those driving (18.5% of the total sample) said that they "often" or "sometimes" exceeded the speed limit by more than 10 miles per hour. Although both sexes had tendencies to exceed the speed limit, males were three times as likely to have exceeded the speed limit often.

Driver impairment due to alcohol and drug use has been a widely-publicized social concern. It appears that 71.3% of our sample had recognized the potential consequences and did not ever drive "under the influence" or ride with a driver who was. Unfortunately, the remaining 28.7% did, at least on occasion, drive or ride with someone influenced by alcohol or drugs. Females were only slightly less prone to this practice despite the significantly lower percentage of females within our sample who drove. Approximately 16% of Hispanics and Native Americans and 9% of Anglos "often" or "sometimes" drove/rode under the influence.

Seat belt use does not vary significantly by sex, but males had a slightly higher percentage reporting consistent use. Males also had a slightly higher percentage who "never use". Seatbelt usage among Hispanics and Native Americans was significantly lower than among Anglos. Of the total sample, 27.4% "always" or "nearly always" wore seatbelts. Yet analysis by ethnicity reveals that 42% of the Anglo adolescents were in this category, compared to 16.5% of Native Americans and 11.5% of Hispanics. On the other end of the spectrum are the 32.5% who never wore seatbelts. Once again, ethnicity yields significant variation. 17.5% of the Anglo, students never used seatbelts, compared to 39.3% of Native Americans and 50.6% of Hispanics who never buckled-up.

DRIVING ABOVE THE SPEED LIMIT BY SEX

Question: When driving a car, do you ever exceed the speed limit by more than 10 miles per hour?

	TOTAL	Male	Female
Not Driving Yet	55.1%	49.0%	61.7%
Never	13.7%	14.5%	12.8%
Rarely	12.7%	12.6%	12.8%
Sometimes	12.0%	14.4%	9.4%
Often	6.5%	9.6%	3.3%

DRIVING ABOVE THE SPEED LIMIT BY ETHNICITY

Question: When driving a car, do you ever exceed the speed limit by more than 10 miles per hour?

	TOTAL	Anglo	Hispanic	Native American	Black	Asian	Other
Not Driving Yet	55.1%	59.9%	48.5%	48.7%	60.0%	80.0%	63.2%
Never	13.7%	10.5%	18.3%	14.7%	13.3%	0%	10.3%
Rarely	12.7%	10.1%	15.9%	16.7%	6.7%	6.7%	10.3%
Sometimes	12.0%	11.9%	11.3%	15.3%	20.0%	6.7%	9.2%
Often	6.5%	7.6%	6.0%	4.7%	0%	6.7%	6.9%

DRIVING UNDER THE INFLUENCE OF DRUGS BY SEX

Question: Do you ever drive under the influence of alcohol or drugs or ride with a driver who is?

	TOTAL	Male	Female
No, I don't	71.3%	71.8%	70.7%
Yes, often	3.8%	4.3%	3.3%
Yes, sometimes	8.8%	9.3%	8.2%
Yes, very seldom	16.1%	14.6%	17.8%

DRIVING UNDER THE INFLUENCE OF DRUGS BY ETHNICITY

Question: Do you ever drive under the influence of alcohol or drugs or ride with a driver who is?

	TOTAL	Anglo	Hispanic	Native American	Black	Asian	Other
No, I don't	71.3%	76.1%	66.7%	65.3%	80.0%	66.7%	69.0%
Yes, often	3.8%	3.2%	4.2%	4.0%	0%	0%	8.0%
Yes, sometimes	8.8%	5.7%	12.0%	12.0%	6.7%	6.7%	9.2%
Yes, very seldom	16.1%	15.1%	17.1%	18.7%	13.3%	26.7%	13.8%

FREQUENCY OF SEATBELT USE BY SEX

Question: How often do you use seatbelts when you drive or ride in a car?

	TOTAL	Male	Female
Always or nearly always	27.4%	28.1%	26.6%
Sometimes	24.0%	23.6%	24.5%
Seldom	16.1%	15.1%	17.2%
Never	32.5%	33.3%	31.7%

FREQUENCY OF SEATBELT USE BY ETHNICITY

Question: How often do you use seatbelts when you drive or ride in a car?

	TOTAL	Anglo	Hispanic	Native American	Black	Asian	Other
Always or nearly always	27.4%	42.0%	11.5%	16.0%	33.3%	26.7%	27.6%
Sometimes	24.0%	24.9%	21.5%	27.3%	20.0%	26.7%	28.7%
Seldom	16.1%	15.6%	16.4%	17.3%	23.3%	13.3%	13.8%
Never	32.5%	17.5%	50.6%	39.3%	23.3%	33.3%	29.9%

REPLICATION

Administration of the risk appraisal survey in additional New Mexico schools, as well as periodic comparative surveys within the schools participating in this initial project, can greatly advance the state's health and education interests. The larger the data base becomes, the greater the analytical potential and thereby the refinement of educational approaches. In addition there are immediate benefits to the participating students. This is possible with the simple-to-operate (i.e., user-friendly) computerized Wellness Check program.

Based upon this initial project experience, it is strongly believed that any teacher, school nurse, or administrator could successfully conduct a classroom or school-wide survey. Computer expertise is not necessary, although having a back-up person with computer experience available in the event of unusual complications is ideal. It is recommended that chapter 5 of the Wellness Check Operator's Manual, titled "Using the Wellness Check Program," be read in advance by anyone planning to conduct the risk appraisal. Reading the entire manual does, of course, have advantages.

Although the operation of the computer program is understandably explained in the operator's manual, a few critical points deserve mention. First, the keyboard must be in "caps lock" (i.e., printing all capital letters) for any typed entry to be "read" by the computer. Secondly, all typed entries must be followed by pressing the "Return" key. Until this key is pressed, the computer will not act upon the information despite its appearance on the (TV) monitor screen. Lastly, it is important to record the respondent numbers before beginning and upon ending the survey. These numbers are essential for retrieving the data necessary for printing a group profile or any other analysis. When the data disk is loaded into the disk drive, the number of respondents already on the disk will be shown on the monitor. The next sequential number following that shown as already on the disk is the beginning respondent number. As each individual's survey information is printed, the computer will keep a running total of respondent numbers. After the last risk appraisal print-out is completed, the displayed number should be recorded as the ending respondent number. With these items accomplished, the survey can be performed and the data will be stored for immediate or subsequent analysis.

It is presumed that most, if not all, schools have suitable computers for this purpose. This project utilized Apple IIe and II+ computers which were available in the schools, although the Wellness Check program is "compatible" with some other computers. The program can operate under either of two modes: the "type-in version" in which the individual's response to each question is entered via the keyboard, or the "card version" in which the individual responds on a computer card which is fed through a card reader, scanned, and automatically entered into the computer. The card reader version is clearly superior for any significant volume of respondents. In approximately eight seconds the reader will scan the card answers, feed the information to the computer, and identify any errors. The most common errors are unanswered questions or more than one answer to a question (often caused by incomplete erasure). In either event, the computer will not analyze any of the information until all questions are singularly answered. The alternative mode is the type-in version. Although the typist will by necessity clarify or correct any errors before entry into the computer, this mode increases the time necessary to perform the survey so significantly as to seriously affect the feasibility of survey performance.

Another important element is the printer. Small Epson printers were found predominantly in the schools. Since the Wellness Check program is designed for 132 characters per line, the 8½" paper is not conducive unless the printer can be placed into a compressed (16.5 character/inch) print mode. This is desirable, but it should be noted that the only detrimental result if wider computer paper can not be accommodated or if the compressed print mode can not be made operable, is that words on the print-out will sometimes be split at the end of a line (without benefit of hyphen). (This deficiency is further exacerbated when printing school profiles). Perhaps a more serious operational problem is the speed of the printer. Recognizing that the length of each individual print-out varies based upon the severity of reported risk, the school-supplied printers generally consumed over two minutes per print-out. This may not seem long, but it is long enough to preclude the administration of the survey and the processing of individual print-outs during a single class period for all but the very smallest of classes. Unless higher-speed printers can be used, after-class time will be required for processing and printing each student's appraisal. This precludes immediate feedback to the students. It also threatens to compromise the survey's confidentiality and the students' perception of it. No identifying information is requested in the survey questionnaire. In fact, the only way to tell whose print-out belongs to whom is the order in which the computer receives the data and prints the results. If immediate processing is not possible, some identifier must be used to assure that each student receives their personal appraisal. When this situation arose during the project, the students were asked to write some identifying information on the back of their computer answer cards. Some used initials, nicknames, birthdates, favorite rock groups, etc. Of course some care must also be taken to prevent duplicate identifiers. However, the most important element is that the students remember their identifier and that they are comfortable that their anonymity is preserved.

All of this presumes availability of the Wellness Check program software, and, preferably, a computer card reader. The Health and Environment Department and/or the Department of Education could fund a specified number of school surveys annually or establish an operable mechanism to encourage schools to initiate the survey with their own staff resources. If the latter course is selected, guidelines for data collection and submission can be formulated as part of a software "loaner" program. The availability of a computer card reader (with interface board) could be included with the loaner package and would greatly improve the feasibility of operation and thereby the schools' incentive to participate.

CONCLUSION

The contribution of behavioral health risks to death and disease is increasingly recognized and logically identified as a critical element for the further improvement of health status. Behavior is frequently the result of habits formed over time and once established is difficult to change. Thus, the promotion of healthful lifestyle habits among the young has significant potential for immediate and long-term benefits. In order to maximize this potential, health education interventions must be targeted, evaluated and refined. The personal nature of individual behavior often prevents availability of the information necessary for this process. Computerized health risk appraisals, which offer individual confidentiality while enabling the collection of aggregate data, can play a valuable role in educational planning, methodology and evaluation. The identification of significant risk variance between regions, schools, or subsets of a population and determination of the age of onset for specific risk practices are but two outcomes which may greatly advance health education practice.

The New Mexico Adolescent Health Risk Survey represents a first significant step to gather and analyze data on adolescent health-related practices and knowledge. This information can greatly assist those who are attempting to prepare youth for the life-long decisions necessary to maintain health and pursue wellness. Valuable as this initial information is, its usefulness can be increased by an organized, continuous surveillance process. Based upon the experience of this project and the availability of the necessary materials, such an undertaking may well be one of the most economical and beneficial investments for adolescent health promotion.

TEEN
1.2

HEALTH RISK APPRAISAL QUESTIONNAIRE

EST COPY AVAILABLE

WELLNESS CHECK

You are about to begin a Health Risk Appraisal designed to help you think about your own health habits and to suggest areas in which you might be able to improve your health status and reduce your health risks.

Your answers are guaranteed confidential. Please respond honestly so that the computer can accurately calculate your true health risks.

Please consider each question carefully - then place an "x" to the right of the answer you choose on your answer sheet. If you are using a computer answer card, fill in the appropriate circle on the answer card with a Number 2 pencil. Fill in only one answer per question.

For example:

Question 27

How often do you use seatbelts when you drive or ride in a car?

(A) Always or nearly always (B) Sometimes

(C) Seldom (D) Never

If you want to answer, Sometimes, fill in the circle on the right-hand side of (B) on you answer card, like this:

27 (A) ○ (B) ● (C) ○ (D) ○

Please turn the page and begin your health risk appraisal.

Please answer every question, but give only one answer to each question.

Question 1

Are you:

Male ( ) Female ( )

Question 2

Your age is:

13 or under ( ) 14 ( ) 15 ( )

16 ( ) 17 ( ) 18 or over ( )

Question 3

What do you consider your race/ethnic group to be?

(A) White (non-Hispanic origin)

(B) Black (Afro-American origin)

(C) Hispanic (D) Asian or Pacific Islander

(E) Native American Indian or Alaskan native (F) Other

Question 4

What grade are you in now?

7th ( ) 8th ( ) 9th ( )

10th ( ) 11th ( ) 12th ( )

Question 12

How often do you snack on foods like pastries, candy, sweets, soft drinks, or other sugary foods?

(A) Daily (B) At least 3 times a week

(C) Seldom (D) Never

Question 13

How often do you brush your teeth?

(A) Daily (B) At least 3 times a week

(C) Seldom (D) Never

Question 14

How often do you use dental floss on your teeth and gums?

(A) Daily (B) At least 3 times a week

(C) Seldom (D) Never

Question 15

Have you had your teeth checked and/or cleaned at a dentist's office or clinic in the past 12 months?

Yes ( ) No ( )

Question 16

Have you been immunized (received shots) to protect you against measles and German measles (rubella)?

(A) Yes, both (B) Yes, one (C) Neither

(D) I don't know

Question 17

How often do you walk at least one mile without stopping?

(A) Daily (B) At least 3 times a week (C) Seldom

(D) Never

Question 18

Aerobic exercise is any physical activity that greatly increases both heart rate and breathing. Aerobics can include exercising, jogging, swimming, jumping rope, cross country skiing, brisk walking, or other strenuous activities. How often do you get at least 20 minutes of non-stop aerobic exercise?

(A) Daily (B) At least three times a week

(C) Once or twice a week (D) Seldom (E) Never

Question 19

How often do you participate in recreational activities -- such as bowling, golf, tennis, basketball, softball, dancing, or similar activities?

(A) Daily (B) At least three times a week

(C) Once or twice a week (D) Seldom (E) Never

Question 20

How many cigarettes (tobacco) do you smoke?

(A) None, I have never smoked (B) None, I quit smoking

(C) A pack or less per week

(D) More than a pack per week but less than a pack per day

(E) 1 pack per day (F) Between 1 and 2 packs per day

(G) 2 or more packs per day

Question 28

When driving a car, do you ever exceed the speed limit by more than 10 miles per hour?

(A) Not driving yet

(B) Never exceed speed limit by 10 mph

(C) Rarely exceed speed limit by 10 mph

(D) Sometimes exceed speed limit by 10 mph

(E) Often exceed speed limit by 10 mph

Question 29

If you ride a motorcycle or moped, do you wear a helmet?

(A) Don't ride a motorcycle/moped (B) Never wear a helmet

(C) Rarely wear a helmet (D) Sometimes wear a helmet

(E) Always wear a helmet

Question 30

When walking or jogging on a road, which side of the road do you walk or jog on?

(A) Facing on-coming traffic

(B) In same direction as traffic (C) Either side

Question 31

When walking or jogging or riding a bike after dark do you wear light-colored or reflective clothing or have reflectors on you bike?

(A) No (B) Yes, sometimes (C) Yes, often or always

(D) I don't walk/jog/ride a bike after dark

Question 32

Do you have a smoke detector in your home or apartment?

(A) No (B) Yes, and I'm sure that it works

(C) Yes, but it may not work (D) I don't know

Question 33

Do you ever hitchhike or pick up hitchhikers?

(A) No (B) Yes, often (C) Yes, sometimes

(D) Yes, but seldom

Question 34

Do you know how to swim or stay afloat in water that is over your head?

Yes ( ) No ( )

Question 35

Have you lost more than five pounds in the past few months without dieting?

Yes ( ) No ( )

Question 36

Do you usually get enough sleep and feel rested in the morning?

(A) Yes, usually (B) Yes, sometimes (C) No